

AMSAT News Service Weekly Bulletins

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AMSAT NEWS SERVICE

ANS-115

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

* The AMSAT team is preparing for the 2010 Dayton Hamvention AMSAT *
* Booth and activities. For the latest information go to: *
* <http://www.amsat.org/amsat-new/hamvention/2010/Dayton.php> *
* *
* Please be advised that tickets for the AMSAT-TAPR banquet at *
* Dayton will not be sold at the booth. *
* All tickets must be purchased at the AMSAT store *
* <http://www.amsat-na.com/store/item.php?id=100158> *

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SB SAT @ AMSAT \$ANS-115.01

Reminder: AMSAT Board of Directors Nominations Now Open

AMSAT News Service Bulletin 115.01

>From AMSAT HQ SILVER SPRING, MD.

April 25, 2010

To All RADIO AMATEURS

BID: \$ANS-115.01

It is time to submit nominations for the upcoming open seats on the AMSAT--NA Board of Directors. A nomination requires either one Member Society or five current individual members to nominate an AMSAT member for the position. Three director's terms expire this year: Tom Clark, K3IO, Lou McFadin, W5DID and Gould Smith, WA4SXM. Nominations must be in writing and mailed to: AMSAT, 850 Sligo Ave #600, Silver Spring MD 20910. They can arrive no later than June 15th

[ANS thanks Martha for the above information]

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SB SAT @ AMSAT \$ANS-115.02

The Dayton \$5000 Challenge Extended to September 1

AMSAT News Service Bulletin 115.02
>From AMSAT HQ SILVER SPRING, MD.
April 25, 2010
To All RADIO AMATEURS
BID: \$ANS-115.02

The Dayton Amateur Radio Association (DARA) will match one-for-one any donations made to AMSAT between now and September 1, 2010 up to a maximum of \$5,000. Please support "Getting AMSAT Back into Space" and help us raise the funds needed for our next satellite project.

AMSAT's Project "Fox" is a cubesat that will provide a 2 meter-70 Centimeter FM transponder that will match the ground performance of AO-51. You can send your donation to: AMSAT, 850 Sligo Ave #600, Silver Spring MD 20910. If you prefer, you can call Martha at the AMSAT office (US call toll free at 888-322-6728 or 301-589-6062) and contribute with a credit card.

We will be accepting 'Getting AMSAT Back into Space' donations at various hamfests where AMSAT has a presence, including the Hamvention.

You can also make contributions online in the AMSAT Store:
<http://www.amsat-na.com/store/donation.php>

[ANS thanks Martha for the above information]

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SB SAT @ AMSAT \$ANS-115.03
CubeSat Workshop Videos Can Be Viewed On-line

AMSAT News Service Bulletin 115.03
>From AMSAT HQ SILVER SPRING, MD.
April 25, 2010
To All RADIO AMATEURS
BID: \$ANS-115.03

This week's CubeSat Workshop at Cal Poly has posted many videos of the presentations. At press time videos from the first 2 days are available now: <http://www.ustream.tv/channel/CubeSatWorkshop/v3>

Among the many presentations available are:

- + NSF Comms Project Update - Bryan Klofas KF6ZE0 - SRI International
- + Extending 1U Communications - Kevin Brown - AstroDev
- + Development Approaches for CubeSats - Ehson Mosleh & David Klumpar Montana State University
- + The Spectrum of Space Projects for Student Education - Robert Twiggs KE6QMD - Morehead State University
- + Implementation of Deployable Solar Panels on a 1U CubeSat - Abhishek Bajpayee - University of Louisiana

These videos can be seen at
<http://www.ustream.tv/channel/CubeSatWorkshop/v3>

Check the website for video of later presentations covering a D-STAR cubesat OUFTI-1, GENSO and Lunar Lander/Orbiter CubeSats which are expected to be added at the conclusion of the Cubesat Workshop.

[ANS thanks Bryan Klofas, KF6ZE0 and SouthGate News for the above information]

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SB SAT @ AMSAT \$ANS-115.04
Swiss Amateur Radio Cubesat TIsat-1 Ready for Launch

AMSAT News Service Bulletin 115.04
>From AMSAT HQ SILVER SPRING, MD.
April 25, 2010
To All RADIO AMATEURS
BID: \$ANS-115.04

The Swiss Amateur Radio CubeSat TIsat-1 built by students in Ticino is ready for launch from India later this spring. TIsat-1 is to be launched on the PSLV-C15 launcher from the Sriharikota Space Center (SHAR) in India. It will go into a 670 km sun synchronous orbit with an inclination of 98.5 degrees.

The radio communications system is based on the Alinco DJC-6 dual band hand held transceiver. Downlink power will be 400mW on 437.305 MHz. An uplink will be at 145.980 MHz. TIsat-1 will send its call sign HB9DE in CW and transmit AFSK telemetry from its on-board experiments.

Experiments are planned for:

- + Monitoring of the durability of exposed thin bonding wires, PCB tracks and lines (Atomic Oxygen effects).
- + Verification of the system fault tolerance scheme including algorithms for error detection and correction both for on-board memories and for communication.
- + Acquisition of spacecraft environment and operating data.
- + Redundancy in the key systems in order to resist space environment induced effects. The critical hardware functions were replicated and implemented with different technologies.
- + Careful hardware and software design taking care of latchups and single-event upsets.
- + Smart self-adaptive software management scheme based on techniques stemming from Artificial Intelligence.

[ANS thanks TIsat-1, SouthGate ARC News and the IARU Satellite Coordinator for the above information]

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SB SAT @ AMSAT \$ANS-115.05
Operations Team Requests Feedback on V0-52's 5th Anniversary

AMSAT News Service Bulletin 115.05
>From AMSAT HQ SILVER SPRING, MD.
April 25, 2010
To All RADIO AMATEURS
BID: \$ANS-115.05

This week Mani, VU2WMY Secretary & Station-In-Charge of the Upagrah Amateur Radio Club VU2URC at the India ISRO Satellite Centre sent a request on behalf of the Hamsat V0-52 Operations Director.

To commemorate the milestone of Hamsat's V0-52 5 successful years in space on May 4 the India/ISRO team plans to publish a 'Comprehensive Performance & Utilization Report' of the V0-52 Transponder based on user feedback from around the world. Information specifically request-

ed by ISTRAC for the report includes:

1. PERFORMANCE of the HAMSAT TRANSPONDER as _perceived by the users_
2. COMPARISON of the HAMSAT Transponder with her CONTEMPORARIES
3. Details of SATELLITES providing SIMILAR SERVICES
4. Approximate NUMBER OF USERS of HAMSAT in _India / over the globe_
5. GROWTH of HAMSAT USERS, since launch
6. Approximate HAMSAT TRANSPONDER UTILISATION (transponder interaction period) over the globe (transponder is ON always)
7. Any more INTERESTING INFORMATION on HAMSAT

Send your feedback to Mani, VU2WMY at wmy@isac.gov.in or vu2wmy_mani@yahoo.com.

[ANS thanks Mani, VU2WMY for the above information]

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SB SAT @ AMSAT \$ANS-115.06

SA AMSAT Space Symposium Announces Cubesat Development

AMSAT News Service Bulletin 115.06

>From AMSAT HQ SILVER SPRING, MD.

April 25, 2010

To All RADIO AMATEURS

BID: \$ANS-115.06

SA AMSAT announced at their recent Space Symposium held at the University of KwaZulu-Natal that it would be building its own CubeSat.

The project will involve radio amateurs, students and learners. At this stage the project will start with inviting input from radio amateurs before the final payload is decided on, and project teams will then be set up. If you are interested in becoming involved, you are invited to send an email with your contact details and areas of expertise to saamsat@intekom.co.za.

The currently proposed payload will include a transponder with a 30 kHz bandwidth, a telemetry beacon and science projects.

[ANS thanks SA AMSAT for the above information]

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SB SAT @ AMSAT \$ANS-115.07

Arecibo EME Wrap Up

AMSAT News Service Bulletin 115.07

>From AMSAT HQ SILVER SPRING, MD.

April 25, 2010

To All RADIO AMATEURS

BID: \$ANS-115.07

While not strictly amateur satellite related, another aspect of amateur radio in space includes EME operations. Many amateur satellite operators participated in the recent EME test from Arecibo and may be interested in this.

Joe Taylor K1JT wrote to the EME community on the memorable KP4AO amateur radio moon bounce operation from the Arecibo Observatory in Puerto Rico, "Many thanks to all stations we worked from KP4AO

-- and our apologies to the many more who called without completing a QSO. The Arecibo telescope's short moon windows were frustrating for all, ourselves included."

Joe descibed the "wall" of stations calling as simply incredible. A rough estimate suggests that we may have worked something like 20% of the callers potentially workable on SSB, 10% of those workable on CW, and only a few percent of those workable on JT65. I guess we'll have todo it again, in due course.

The KP4A0 log shows nearly 240 completed QSOs with some 57 DXCC entities, in a total of 8 operating hours. The team made recordings of the whole 432 MHz EME sub-band for for most of the time KP4A0 was on the air. In due course it will be possible to "tune the band" carefully, many times, picking out callsigns.

Joe continued, "Here's a request for all ...

1. If you worked us with a setup significantly smaller than is normally required for EME, please send me a short note describing your antenna, receiver, and Tx power to joe@Princeton.EDU
2. If you copied us with a small setup, please send me details on your antenna and receiver.

I know we worked and were heard by some pretty small setups, and I'd like to document some of them for a write-up in QST."

Members of the Arecibo Observatory Amateur Radio Club who constructed and operated the KP4A0 station for this event:

Angel, WP3R

Pedro, NP4A

Angel, WP4G

Jim, WA3FET

Joe, K1JT

Additional guest operator: Pat, AA6EG

The WSJT software for operating JT-65B by K1JT can be downloaded from <http://www.physics.princeton.edu/pulsar/K1JT/>

Many thanks, and see you on the moon!

73, Joe, K1JT

[ANS thanks Joe, K1JT for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office. And with that please keep in mind the lament of the fellow who didn't pass his exam, "I'll never take another ham radio code test," Tom said without remorse.

73,

This week's ANS Editor,

JoAnne Maenpaa, K9JKM